FORM PTO-1390 US DEPARTMENT OF COMMERCE REV. 5-93PATENT AND TRADEMARK OFFICE **TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371**		ATTORNEYS DOCKET NUMBER **P01,0162** U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 09/856999
INTERNATIONAL APPLICATION NO. **PCT/EP99/09399**	INTERNATIONAL FILING DATE **01 December 1999**	PRIORITY DATE CLAIMED **01 December 1998**

TITLE OF INVENTION

METHOD AND CIRCUIT ARRANGEMENT FOR CONFIRMING THE SERVICEABILITY AND CORRECT USE OF CONNECTING CABLES IN A SWITCHING DEVICE

APPLICANT(S) FOR DO/EO/US

Klaus STEINIGKE

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay.
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
   b. ☐ has been transmitted by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. §371(c)(3))
   a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
   b. ☐ have been transmitted by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98; **(PTO 1449, Prior Art, Search Report, References).**
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
    (SEE ATTACHED ENVELOPE)
13. ☒ Amendment "A" Prior to Action
    ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☒ A substitute specification and substitute specification mark-up.
15. ☒ A change of address letter attached to the Declaration.
16. ☒ Other items or information:
    a. ☒ Submission of Drawings and Request for Approval of Drawing Changes, 1 sheet of drawings, Figure 1
    b. ☒ EXPRESS MAIL #EL 843728155US dated May 30, 2001

531 Rec'd PCT 30 MAY 2001

U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.5) 09/856999	INTERNATIONAL APPLICATION NO PCT/EP99/09399	ATTORNEY'S DOCKET NUMBER P01,0162

17. ☒ The following fees are submitted:	CALCULATIONS	PTO USE ONLY
BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5): Search Report has been prepared by the EPO or JPO $860.00 International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) $690.00 No international preliminary examination fee paid to USPTO (37 C F.R 1.482) but international search fee paid to USPTO (37 C.F.R. 1.445(a)(2) $710.00 Neither international preliminary examination fee (37 C.F.R. 1.482) nor international search fee (37 C.F.R. 1.445(a)(2) paid to USPTO $1000.00 International preliminary examination fee paid to USPTO (37 C.F.R 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) $ 100.00		
ENTER APPROPRIATE BASIC FEE AMOUNT =	$ 860.00	
Surcharge of $130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 C.F R. 1.492(e))	$	

Claims	Number Filed		Number Extra	Rate		
Total Claims	05	- 20 =	0	X $ 18.00	$	
Independent Claims	02	- 3 =	0	X $ 80.00	$	
Multiple Dependent Claims				$270.00 +	$	
				TOTAL OF ABOVE CALCULATIONS =	$ 860.00	
Reduction by ½ for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)					$	
				SUBTOTAL =	$ 860.00	
Processing fee of $130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +					$	
				TOTAL NATIONAL FEE =	$ 860.00	
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3 28, 3.31). $40.00 per property +						
				TOTAL FEES ENCLOSED =	$ 860.00	
				Amount to be refunded	$	
				charged	$	

a. ☒ A check in the amount of $ 860.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. _____ in the amount of $ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. **50-1519**. **A duplicate copy of this sheet is enclosed.**

NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

SCHIFF HARDIN & WAITE
PATENT DEPARTMENT
6600 Sears Tower
233 South Wacker Drive
Chicago, Illinois 60606-6473

CUSTOMER NUMBER 26574

Steven H. Noll

SIGNATURE **STEVEN H. NOLL** **(REG. NO. 28,982)**
ATTORNEY FOR APPLICANTS

DATE: May 30, 2001

BOX PCT

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY – CHAPTER II

AMENDMENT "A" PRIOR TO ACTION AND SUBMISSION OF SUBSTITUTE SPECIFICATION

APPLICANT(S):	Klaus STEINIGKE
ATTY DCK NO:	P01,0162
INTERNATIONAL APPLICATION NO:	PCT/EP99/09399
INTERNATIONAL FILING DATE:	01 DEC 1999
INVENTION:	METHOD AND CIRCUIT ARRANGEMENT FOR CONFIRMING THE SERVICEABILITY AND CORRECT USE OF CONNECTING CABLES IN A SWITCHING DEVICE

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Applicant herewith submits an amendment and substitute specification in the captioned PCT application, and respectfully requests entry of same prior to examination in the United States National Stage.

IN THE TITLE

Change the title of the Invention to:

METHOD AND CIRCUIT FOR CONFIRMING THE SERVICEABILITY AND CORRECT USE OF CONNECTING CABLES IN A SWITCHING DEVICE

IN THE SPECIFICATION

Cancel the specification as filed, and insert therefore the substitute specification provided herewith.

IN THE CLAIMS

Cancel the claims as filed, and insert therefore new claims 6 – 10:

- - What is claimed is:

6. (New) A method for confirming the serviceability and correct use of switching units in a switching device using connecting cables which connect plug connections to one another, the switching units comprising fault monitoring devices which respond to specific faults in transmission signals, the method comprising the steps of:

emitting test signals to an end of relevant ones of said connecting cables;

evaluating output signals occurring at each of the other ends of the relevant ones of said connecting cables; and

transmitting said test signals via the relevant ones of said connecting cables when said fault monitoring devices detect specific faults in said transmission signals.

7. (New) The method of claim 6, wherein corrupted synchronization signals are used as transmission signals having faults.

8. (New) The method of claim 7, wherein corrupted synchronization signals of ATM transmission are used as transmission signals having faults.

9. (New) A circuit for confirming the serviceability and correct use of switching units in a switching device, said switching device including switching units connected to one another by plug-in connecting cables, the circuit comprising:

a fault signaling device located in each switching unit, said fault signaling device capable of emitting fault reporting signals when specific faulty transmission signals occur; and

a test device connected to said switching units, said test device capable of emitting transmission signals as test signals corrupted by faults to one set of switching units, whereby said test device checks other switching units via the connecting cables for occurrence of fault reporting signals.

10. (New) The circuit of claim 9, wherein said test device is connected to said switching units via separate connecting lines. - -

IN THE ABSTRACT

Cancel the Abstract as filed and insert therefore on a separate page, the following Abstract of the Disclosure:

- - **ABSTRACT OF THE DISCLOSURE**

A method and circuit for confirming the serviceability and correct use of switching units in a switching device, using connecting cables which attach plug connections to one another. Transmission signals which have faults are emitted as test signals to one of the ends of the connecting cables. Fault monitoring devices, which respond to such faults in transmission signals,

emitting fault reporting signals. The fault reporting signals can be evaluated in the switching units, which are connected to the other ends of the connecting cables. - -

REMARKS

A substitute specification and an Abstract of the Disclosure are provided herewith which make editorial changes in order to conform to standard US practice. A marked-up copy of the specification is also provided reflecting the changes made.

In addition, the claims as filed have been canceled and replaced by new claims that more clearly set forth the subject matter of Applicant's invention.

No new matter has been inserted into the application.

Applicant submits that this application is in proper condition for examination in the United States National Examination Stage, which action is earnestly solicited.

Respectfully submitted,

Steven H. Noll

Steven H. Noll (Reg. No. 28,982)

SCHIFF, HARDIN & WAITE
Patent Department
6600 Sears Tower
233 South Wacker Drive
Chicago, IL 60606
Telephone: (312) 258-5790
Attorneys for Applicant(s)

Customer Number: 26574

Description

Method and circuit arrangement for confirming the serviceability and correct use of connecting cables in a switching device

The invention relates to a method and a circuit arrangement for confirming the serviceability and the correct use of switching units of a switching device with the aid of connecting cables which connect plug connections to one another by emitting test signals to one of the ends of the relevant connecting cables and by evaluating the output signals which occur at each of the other ends of the relevant connecting cables.

In order to allow the evaluation, mentioned above, of the output signals which occur at each of the other ends of the tested connecting cables to be carried out, a separate evaluation procedure and, linked to this, a separate evaluation circuit are normally required in the switching units connected there. There is now a requirement for this additional complexity to be reduced, or even to be avoided.

The invention is accordingly based on the object of indicating a way in which, in the case of a method and a circuit arrangement of the type mentioned initially, the serviceability and the correct use of switching units of a switching device can be confirmed in a relatively simple manner with less effort than before, with the aid of the connecting cables which connect plug connections to one another.

The object mentioned above is achieved, according to the invention and in the case of a method of the type mentioned initially, in that when using switching units with

fault monitoring devices which respond to specific faults in the transmission signals, transmission signals which have such faults are transmitted as test signals via said connecting cables.

The invention is distinguished by the advantage that it involves virtually no additional monitoring effort since it makes joint use of fault monitoring devices, which are normally present in any case in the switching units, for confirming the serviceability and the correct use of said connecting cables.

Faulty synchronization signals are preferably used as transmission signals having faults. This allows synchronization fault monitoring devices which exist in the switching units to be jointly used in a particularly simple manner for confirming the serviceability and the correct use of said connecting cables.

Corrupted synchronization signals of ATM information signals are preferably used as transmission signals having faults. ATM switching devices make use of this measure in an advantageous manner.

The method according to the invention is expediently carried out using a circuit arrangement in a switching device, which contains switching units which are connected to one another by means of plug-in connecting cables, in which case the switching units of said switching device are equipped with fault signaling devices which emit fault reporting signals when specific faulty transmission signals occur. According to the invention, this circuit arrangement is characterized in that a test device is connected to the switching units of the switching device which are connected to one another by means of the connecting

cables, which test device emits transmission signals, corrupted by faults, as test signals to the one set of switching units of the switching device, and which checks the other switching units, which are connected to the first-mentioned switching units via the connecting cables, for the occurrence of fault reporting signals. This results in the advantage that no additional circuitry complexity whatsoever is required in the switching units of the switching device; all that need be provided is the test device, which is required in any case.

Said test device can preferably be connected via separate connecting lines to the switching units which are connected to one another by means of the connecting cables. This results in the advantage that the relevant test device can be used in a very particularly simple manner.

The invention will be explained in more detail in the following text using an exemplary embodiment and with reference to the drawing.

The lower part of the drawing shows two device blocks DB1 and DB2 of a switching device, which each have a series of switching units SU11, SU21, SU31; SU12, SU22 and SU32. These switching units are connected to one another with the aid of plug connections via multicore connecting cables C1, C2 and C3, respectively. The fact that the relevant connecting cables have a number of cores is in this case indicated by a short oblique bar crossing the respective connecting cable. At the device block DB1 end, the plug connections comprise firstly plug sockets SO11, SO21 and SO31, respectively, and at the device block DB2 end, the relevant plug connections comprise plug sockets SO12, SO22 and SO32. The connecting cables C1, C2 and C3, respectively, are inserted into these plug sockets with the aid of plugs CON11, CON21, CON31, CON12, CON32 and CON22, respectively.

Here, a test circuit TC is connected via connecting lines, which each comprise a number of individual lines, to the switching units SU11, SU21 and SU31 of the device block DB1 and to the switching units SU12, SU22 and SU32 of the device block DB2. In the case of the switching units SU11, SU21 and SU31, these connecting lines are indicated by a single connecting line TL marked by a short oblique bar. In the case of the switching units SU12, SU22 and SU32, the relevant connecting lines are indicated by a single connecting line RL, likewise marked by a short oblique bar. Test signals can be emitted via the line TL from the test circuit TC to separate inputs of the switching units SU11, SU21 and SU31. Evaluation signals can be received by the switching units SU12, SU22 and SU32 from the test circuit TC via the line RL. In the present case, these evaluation signals, as will be described below in more detail, are formed by fault reporting signals, which can be checked by separate fault signaling registers R12, R22 and R32, respectively, in said switching units SU12, SU22 and SU32, respectively.

In the present case, the already mentioned test circuit TC has a microprocessor MP which is connected via a multicore bus line BUS to a program memory ROM, to a random access memory RAM which is used as the main memory, to a control and display unit OD and to two interface devices IF1 and IF2, to which the lines Tl and RL, respectively, mentioned above, are connected. The multicore bus line BUS, whose multicore nature is indicated by a short oblique bar crossing each of the individual lines, can be subdivided into an address bus line, a data bus line and a control bus line.

Now that the construction of the circuit arrangement illustrated in the drawing has been explained to the extent necessary for understanding

of the present invention, the method of operation of this circuit arrangement will now be described.

As stated above, the aim of the invention is to confirm the serviceability and the correct use of connecting cables, with respect to the exemplary embodiment of the connecting cables C1, C2 and C3 illustrated in the drawing. In this case, it is assumed that the relevant connecting cables are used correctly, that is to say are connected, when they respectively connect the plug socket pairs SO11 and SO12, SO21 and SO22, as well as SO31 and SO32 to one another. This means that only the connecting cable C1 is connected correctly in the conditions illustrated in the drawing.

In order to obtain the previously mentioned confirmation now, the switching units SU11, SU21 and SU31 are supplied with test signals from the test circuit TC. In the present case, transmission signals having faults are in this case used as test signals, to be precise specifically faulty synchronization signals; in the situation where messages in the form of ATM signals are transmitted in the switching device, these synchronization signals may be contained in these ATM signals.

The faulty transmission signals mentioned above are transmitted via the connecting cables C1, C2 and C3 to the switching units SU12, SU22, SU32 which are part of the device block DB2; these faulty transmission signals are identified in the fault monitoring devices there, and corresponding fault reporting signals are then immediately stored in associated fault signaling registers R12, R22 and R32, respectively. By appropriate checking of these fault signaling registers R12, R22 and R32, it is thus possible to confirm in a simple manner in the test circuit TC whether the faulty transmission or synchronization signals supplied as test signals

to the individual switching units SU11, SU21 and SU31, respectively, in the device block DB1 also result in the desired fault triggering in the desired switching unit SU12, SU22 and SU32, respectively, in the device block DB2. For example, this is the case for the connecting cable C1 which is the correctly connected connecting cable in the exemplary embodiment. In the case of the connecting cables C2 and C3, the fault reporting signals do not occur in the respectively desired switching units SU22 and SU32, respectively, in the device block DB2 since these are the two incorrectly connected connecting cables, but occur interchanged, that is to say in the switching units SU32 and SU22, respectively. This is identified in the test circuit TC, by which means the incorrect use, that is to say the incorrect connection of the connecting cables C2 and C3, can be identified. Thus, here, the occurrence of the fault reporting signals at the respectively desired point is in this case used as a positive indication of correct use of the respective connecting cable.

The procedure explained above means that it is now not only possible to determine correct use, that is to say correct connection of the connecting cables, but, furthermore, the serviceability of the respective entire connecting cable can also be confirmed. To do this, said test signals are transmitted, preferably successively, via the various cores of the respective connecting cable.

Finally, it should also be mentioned that the invention can be used not just in the one transmission direction between switching units of a switching device which can be connected to one another by means of a plug-in connecting cable, but can also be used, if required, in the opposite transmission direction.

Patent Claims

1. A method for confirming the serviceability and the correct use of switching units in a switching device with the aid of connecting cables which connect plug connections to one another, by emitting test signals to one of the ends of the relevant connecting cables and by evaluating the output signals which occur at each of the other ends of the relevant connecting cables,
characterized in that, when using switching units (SU12, SU22, SU32) with fault monitoring devices (R12, R22, R32) which respond to specific faults in the transmission signals, transmission signals which have such faults are transmitted as test signals via said connecting cables (C1, C2, C3).

2. The method as claimed in claim 1, characterized in that corrupted synchronization signals are used as transmission signals having faults.

3. The method as claimed in claim 2, characterized in that corrupted synchronization signals of ATM information signals are used as transmission signals having faults.

4. A circuit arrangement for carrying out the method as claimed in one of claims 1 to 3, in a switching device (DB1, DB2) which contains switching units (SU11, SU12; SU21, SU22; SU31, SU32) which are connected to one another by means of plug-in connecting cables (C1, C2, C3), the switching units (SU12, SU22, SU32) of which switching device (DB1, DB2) are equipped with fault signaling devices (R12, R22, R32) which emit fault reporting signals when specific faulty transmission signals occur,

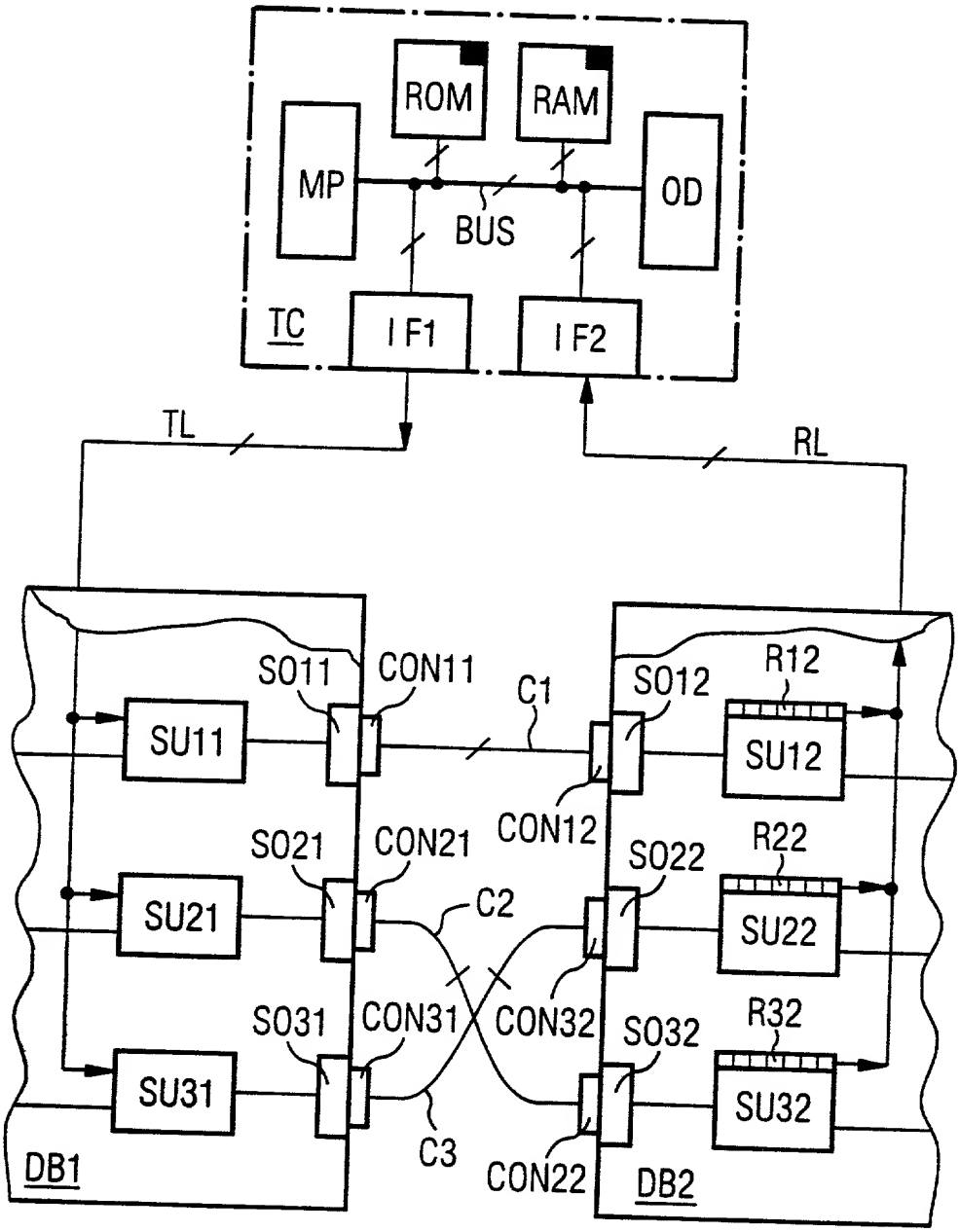
characterized in that a test device (TC) is connected to the switching units (SU11, SU12; SU21, SU22; SU31, SU32) of the switching device (DB1, DB2) which are connected to one another by means of the connecting cables (C1, C2, C3), which test device (TC) emits transmission signals, corrupted by faults, as test signals to the one set of switching units (SU11, SU21, SU31), and which checks the other switching units (SU12, SU22, SU32), which are connected to the first-mentioned switching units (SU11, SU21, SU31) via the connecting cables (C1, C2, C3), for the occurrence of fault reporting signals.

5. The circuit arrangement as claimed in claim 4, characterized in that the test device (TC) can be connected via separate connecting lines (TL, RL) to the switching units (SU11, SU12; SU21, SU22; SU31, SU32) which are connected to one another by means of the connecting cables (C1, C2, C3).

Method and circuit arrangement for confirming the serviceability and correct use of connecting cables in a switching device

In order to confirm the serviceability and the correct use of switching units (SU11, SU21, SU31, SU12, SU22, SU32) in a switching device (DB1, DB2) with the aid of connecting cables (C1, C2, C3) which connect plug connections (SO11, CON11, SO21, CON21, SO31, CON31, CON12, SO12, CON32, SO22, CON22, SO32) to one another, transmission signals which have faults are emitted as test signals to one of the ends of the connecting cables (C1, C2, C3) and fault monitoring devices (R12, R22, R32), which respond to such faults in transmission signals, are used for emitting fault reporting signals, which can be evaluated, in the switching units which are connected to the other ends of the connecting cables (C1, C2, C3).

Drawing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BOX PCT

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY – CHAPTER II

REQUEST FOR APPROVAL OF DRAWING CHANGES

APPLICANT(S):	Klaus STEINIGKE
ATTORNEY DOCKET NO:	P01,0162
INTERNATIONAL APPLICATION NO:	PCT/EP99/09399
INTERNATIONAL FILING DATE:	01 DEC 1999
INVENTION:	METHOD AND CIRCUIT ARRANGEMENT FOR CONFIRMING THE SERVICEABILITY AND CORRECT USE OF CONNECTING CABLES IN A SWITCHING DEVICE

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Applicant herewith requests approval of the changes, as shown in red on the one drawing sheet attached hereto, in the above-referenced PCT application.

Respectfully submitted,

Steven H. Noll

Steven H. Noll (Reg. No. 28,982)

SCHIFF, HARDIN & WAITE
Patent Department
6600 Sears Tower
233 South Wacker Drive
Chicago, IL 60606
Telephone: (312) 258-5790
Attorneys for Applicant(s)

Customer Number: 26574

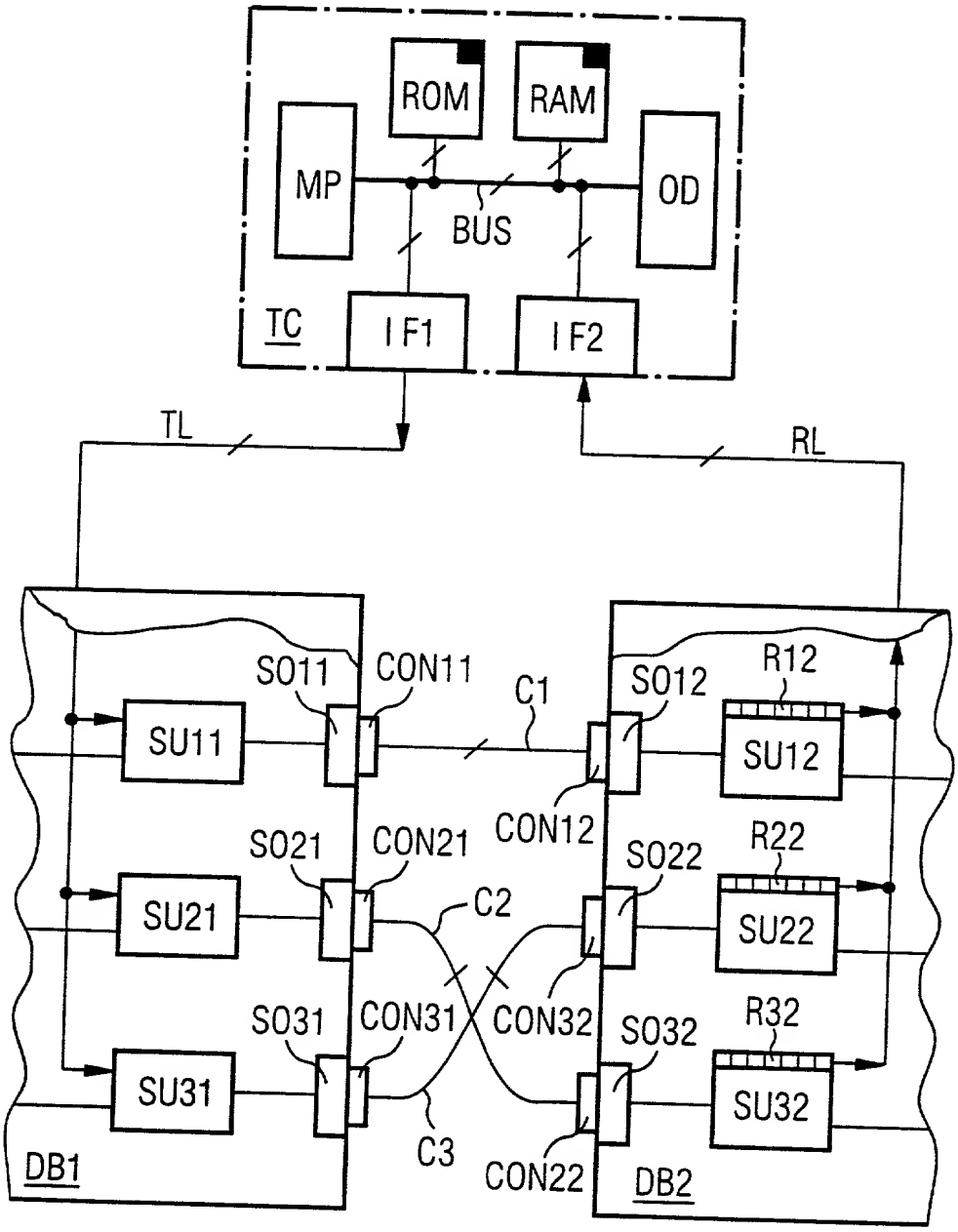
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FIGURE 1

BOX PCT
IN THE UNITED STATES DESIGNATED/ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY--CHAPTER II

SUBMISSION OF DRAWINGS

APPLICANT(S):	Klaus STEINIGKE
ATTORNEY DOCKET NO.:	P01,0162
INTERNATIONAL APPLICATION NO:	PCT/EP99/09399
INTERNATIONAL FILING DATE:	01 DEC 1999
INVENTION:	METHOD AND CIRCUIT ARRANGEMENT FOR CONFIRMING THE SERVICEABILITY AND CORRECT USE OF CONNECTING CABLES IN A SWITCHING DEVICE

Assistant Commissioner for Patents,
Washington, D.C. 20231

Sir:

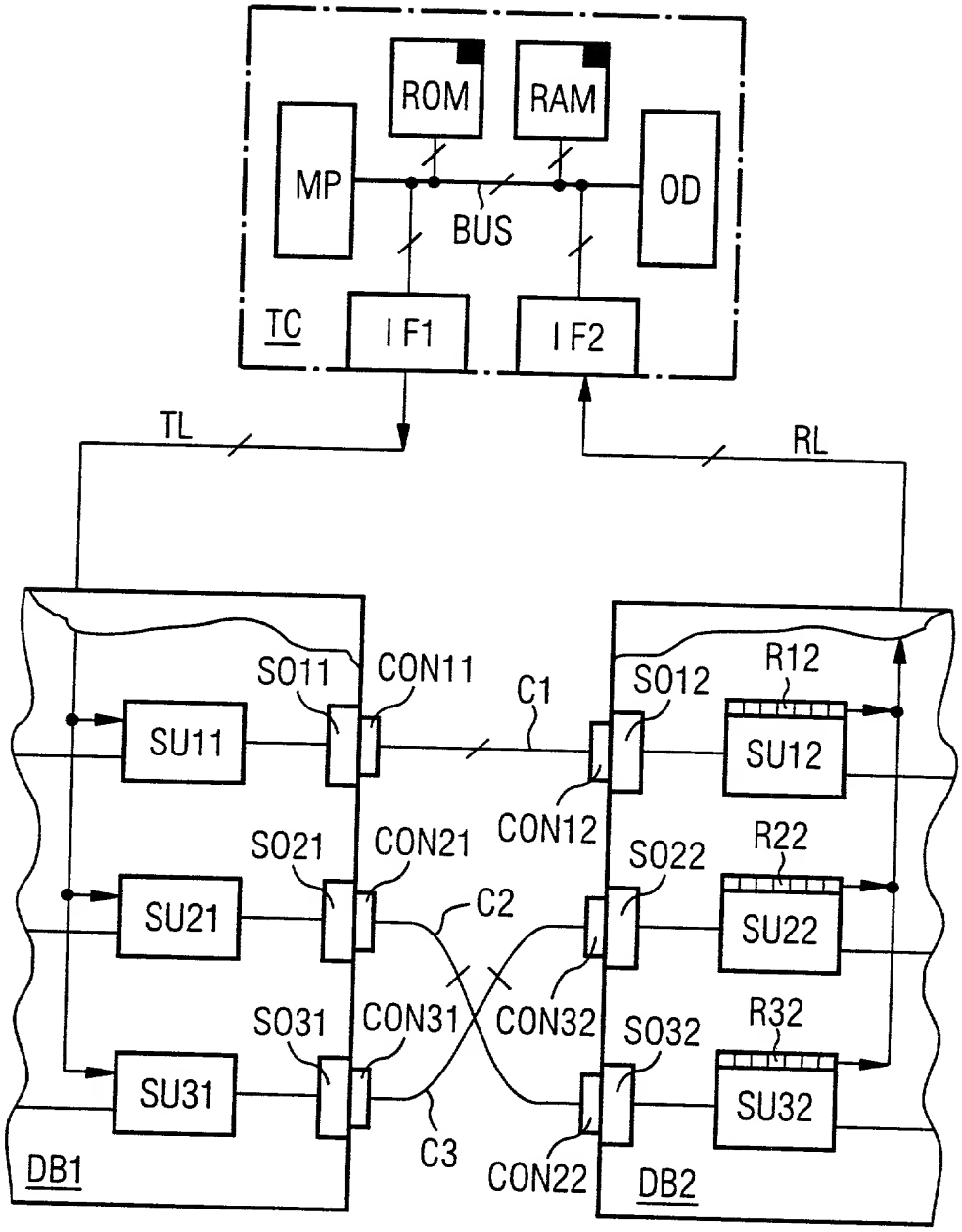
Enclosed is one sheet of drawings, showing Figure 1, for the above-identified PCT application.

Respectfully submitted,

Steven H. Noll (Reg. No. 28,982)

Steven H. Noll
SCHIFF HARDIN & WAITE
Patent Department
6600 Sears Tower
233 South Wacker Drive
Chicago, IL 60606-6473
Telephone: (312) 258-5790
Attorney for Applicant(s)

CUSTOMER NUMBER 26574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BOX PCT
IN THE UNITED STATES DESIGNATED/ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

CHANGE OF ADDRESS OF APPLICANTS' REPRESENTATIVE

APPLICANT(S):	Klaus STEINIGKE
ATTORNEY DOCKET NO.:	P01,0162
INTERNATIONAL APPLICATION NO:	PCT/EP99/09399
INTERNATIONAL FILING DATE:	01 DECEMBER 1999
INVENTION:	METHOD AND CIRCUIT ARRANGEMENT FOR CONFIRMING THE SERVICEABILITY AND CORRECT USE OF CONNECTING CABLES IN A SWITCHING DEVICE

Assistant Commissioner for Patents,
Washington D.C. 20231

S I R:

Members of the firm of Hill & Simpson designated on the original Power of Attorney have merged into the firm of Schiff Hardin & Waite. All future correspondence for the above-referenced application therefore should be sent to the following address:

SCHIFF HARDIN & WAITE
Patent Department
6600 Sears Tower
233 South Wacker Drive
Chicago, Illinois 60606-6473

CUSTOMER NUMBER 26574

Respectfully submitted,

Steven H. Noll (Reg. No. 28,982)

Steven H. Noll
SCHIFF HARDIN & WAITE
Patent Department
6600 Sears Tower
233 S Wacker Drive
Chicago, Illinois 60606-6473
Telephone: (312) 258-5790
Attorneys for Applicants
CUSTOMER NUMBER 26574

Declaration and Power of Attorney For Patent Application
Erklärung Für Patentanmeldungen Mit Vollmacht
German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

As a below named inventor, I hereby declare that:

dass mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

My residence, post office address and citizenship are as stated below next to my name,

dass ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Verfahren und Schaltungsanordnung zur Feststellung der Funktionsfähigkeit und des ordnungsgemäßen Einsatzes von Verbindungskabeln in einer Vermittlungseinrichtung

deren Beschreibung

(zutreffendes ankreuzen)

☒ hier beigefügt ist.

☐ am _____ als PCT internationale Anmeldung PCT Anmeldungsnummer _____ eingereicht wurde und am _____ abgeändert wurde (falls tatsächlich abgeändert).

the specification of which

(check one)

☐ is attached hereto.

☐ was filed on _____ as PCT international application PCT Application No. _____ and was amended on _____ (if applicable)

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

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Prior foreign appplications
Priorität beansprucht

			Priority Claimed	
98 122 794.5	Germany (EPO)	01. Dezember 1998	☒	☐
(Number) (Nummer)	(Country) (Land)	(Day Month Year Filed) (Tag Monat Jahr eingereicht)	Yes Ja	No Nein
			☐	☐
(Number) (Nummer)	(Country) (Land)	(Day Month Year Filed) (Tag Monat Jahr eingereicht)	Yes Ja	No Nein
			☐	☐
(Number) (Nummer)	(Country) (Land)	(Day Month Year Filed) (Tag Monat Jahr eingereicht)	Yes Ja	No Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozeßordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35. United States Code. §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occured between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.) (Anmeldeseriennummer)	(Filing Date) (Anmeldedatum)	(Status) (patentiert, anhängig, aufgegeben)	(Status) (patented, pending, abandoned)
(Application Serial No.) (Anmeldeseriennummer)	(Filing Date) (Anmeldedatum)	(Status) (patentiert, anhängig, aufgeben)	(Status) (patented, pending, abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden koennen, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt: *(Name und Registrationsnummer anführen)*

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

And I hereby appoint

Messrs. John D. Simpson (Registration No. 19,842) Lewis T. Steadman (17,074), William C. Stueber (16,453), P. Phillips Connor (19,259), Dennis A Gross (24,410), Marvin Moody (16,549), Steven H. Noll (28,982), Brett A. Valiquet (27,841), Thomas I. Ross (29,275), Kevin W. Guynn (29,927), Edward A. Lehmann (22,312), James D. Hobart (24,149), Robert M. Barrett (30,142), James Van Santen (16,584), J. Arthur Gross (13,615), Richard J. Schwarz (13,472) and Melvin A. Robinson (31,870), David R. Metzger (32,919), John R. Garrett (27,888) all members of the firm of Hill, Steadman & Simpson, A Professional Corporation.

Telefongespräche bitte richten an: *(Name und Telefonnummer)*

Direct Telephone Calls to: *(name and telephone number)*

312/ 376-0200
Ext. _____

Postanschrift:

Send Correspondence to:

HILL, STEADMAN & SIMPSON
A Professional Corporation
85th Floor Sears Tower, Chicago, Illinois 60606

Voller Name des einzigen oder ursprünglichen Erfinders: STEINIGKE, Klaus	Full name of sole or first inventor:
Unterschrift des Erfinders Datum Steinigke Klaus 16.11.99	Inventor's signature Date
Wohnsitz D-81369 München, Germany DEX	Residence
Staatsangehörigkeit Bundesrepublik Deutschland	Citizenship
Postanschrift Johann-Clenze-Str. 39 D-81369 München Bundesrepublik Deutschland	Post Office Addess
Voller Name des zweiten Miterfinders (falls zutreffend):	Full name of second joint inventor, if any:
Unterschrift des Erfinders Datum	Second Inventor's signature Date
Wohnsitz	Residence
Staatsangehörigkeit	Citizenship
Postanschrift	Post Office Address

(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).

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